

**PATENT** 

# IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of

Customer Number: 20277

Yukio FUJII

Confirmation Number: 1761

Serial No.: 10/653,199

Group Art Unit: 3679

Filed: September 03, 2003

Examiner: Dunwoody, Aaron M.

For:

ROLLING BEARING RING OF CONSTANT VELOCITY JOINT, AND SUPPORT

COMPONENT FOR ROLLING AND SWINGING MOTION

# DECLARATION OF YUKIO MATSUBARA FILED IN SUPPORT OF PETITION UNDER 37 C.F.R § 1.182

Mail Stop Petition Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Sir:

l, Yukio MATSUBARA, to the best of my knowledge and belief, do hereby state as follows:

- 1. My name, as correctly reflected on the executed Declaration at the time of filing the above-noted patent application, was Yukio FUJII.
- 2. On January 15, 2004, my name was legally changed, through effect of marriage, to Yukio MATSUBARA.
- 3. In accordance with MPEP §605.04(c), I have provided both signatures below on this affidavit.

- I have provided an executed Substitute Declaration in my current name, Yukio
   MATSUBARA, for U.S. Patent Application Serial No. 10/653,199.
- 5. I declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of any application or patent issued thereon.

Respectfully submitted,

Date: August 30, 2004

Rv.

Yukio MATSUBARA



Docket No.: 57454-974

#### PATENT

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### DECLARATION UNDER 37 C.F.R. § 1.132

Mail Stop Amendment Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

- 1. I, Yukio Matsubara, declare that:
- 2. I am the sole named and true inventor in the above-identified patent application;
- 3. My name was formerly Yukio Fujii,
- 4. I, as Yukio Fujii, together with Kikuo Maeda, are named as joint inventors in U.S. Patent No. 6,666,931, issued December 23, 2003;
- 5. To the extent that subject matter relating to (i) a rolling bearing ring of a constant velocity joint, employing steel of a component composition containing at least, as alloying elements, at least 0.5 mass % and 0.7 mass % at most of carbon, at least 0.5 mass % and 1.0 mass % at most of silicon, and at least 0.5 mass % and 1.0 mass % at most of manganese with a remainder including iron and inevitable impurities, and having a structure in which a raceway

surface is subjected to induction hardening; (ii) a rolling bearing as described in (i) above, wherein steel is employed having a component composition satisfying  $L \ge 50$  in an equation of:

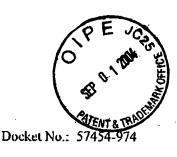
1. 
$$-105.4 \times (C\%)^{-0.84} \times (Si\%)^{1.18} \times (Mn\%)^{1.24}$$

where C%, Si% and Mn% are a percentage content (mass %) of carbon, silicon and manganese. respectively; and (iii) a support component of rolling and swinging motion, comprising the rolling bearing ring of a constant velocity joint defined in (i) above, are disclosed, but not claimed in U.S. Patent No. 6,666,931, I am the sole inventor of said subject matter, and

- 6. Kikuo Macda, the other named joint inventor in U.S. Patent No. 6,666,931, is not an inventor of said subject matter described above.
- 7. The undersigned hereby declares that all statements made herein based upon knowledge are true, and that all statements made based upon information and belief are believed to be true; and further, that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jcopardize the validity of the application or any patent issued thereon.

DATED: August 30, 2004 Jukio Matsubara

Vukio Matsubara



**PATENT** 

#### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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### DECLARATION UNDER 37 C.F.R. § 1.132

Mail Stop Amendment Commissioner for Patents P.O. Box 1450 Alexendria, VA 22313-1450

- 1. I, Kikuo Maeda, declare that:
- 2. Yukio Matsubara was formerly named Yukio Fujii;
- 3. I, together with Yukio Matsubara, as Yukio Fujii, are named as joint inventors in U.S. Patent No. 6,666,931, issued December 23, 2003;
- 4. To the extent that subject matter relating to (i) a rolling bearing ring of a constant velocity joint, employing steel of a component composition containing at least, as alloying elements, at least 0.5 mass % and 0.7 mass % at most of carbon, at least 0.5 mass % and 1.0 mass % at most of silicon, and at least 0.5 mass % and 1.0 mass % at most of manganese with a remainder including iron and inevitable impurities, and having a structure in which a raceway surface is subjected to induction hardening; (ii) a rolling bearing as described in (i) above, wherein steel is employed having a component composition satisfying L ≥ 50 in an equation of:

 $L = 105.4 \times (C\%)^{-0.84} \times (Si\%)^{1.18} \times (Mn\%)^{1.24}$ 

where C%, Si% and Mn% are a percentage content (mass %) of carbon, silicon and manganese.

respectively; and (iii) a support component of rolling and swinging motion, comprising the

rolling bearing ring of a constant velocity joint defined in (i) above, are disclosed, but not

claimed in U.S. Patent No. 6,666,931, Yukio Matsubara is the sole inventor of said subject

matter; and

5. I, Kikuo Maeda, the other named joint inventor in U.S. Patent No. 6,666,931, am

not an inventor of said subject matter described above.

6. The undersigned hereby declares that all statements made herein based upon

knowledge are true, and that all statements made based upon information and belief are believed

to be true; and further, that these statements were made with the knowledge that willful false

statements and the like so made are punishable by fine or imprisonment, or both, under Section

1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize

the validity of the application or any patent issued thereon.

DATED: August 30 2004 Kikuo Maeda
Kikuo Maeda